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SOCS2 Rabbit mAb

Catalog # AP76107

Product Information

Application	WB, FC, IP
Primary Accession	O14508
Reactivity	Rat, Human, Mouse
Host	Rabbit
Clonality	Monoclonal Antibody
Isotype	IgG
Conjugate	Unconjugated
Purification	Affinity Purified
Calculated MW	22172

Additional Information

Gene ID	8835
Other Names	SOCS2
Dilution	WB~~1:1000-1:5000 FC~~1:50-1:100 IP~~1:10-1:100
Format	Liquid in 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and 0.05% BSA.
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

Protein Information

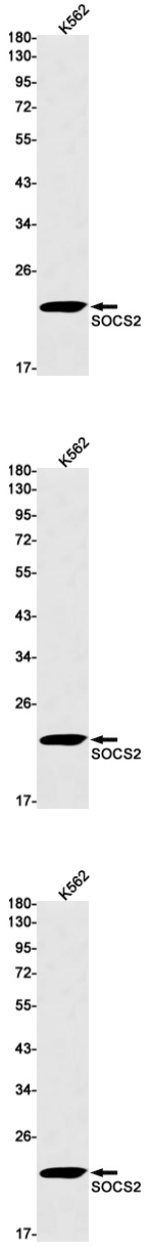
Name	SOCS2 {ECO:0000303|PubMed:10512686, ECO:0000312|HGNC:HGNC:19382}
Function	Substrate-recognition component of a cullin-5-RING E3 ubiquitin-protein ligase complex (ECS complex, also named CRL5 complex), which mediates the ubiquitination and subsequent proteasomal degradation of target proteins, such as EPOR and GHR (PubMed:11781573, PubMed:21980433, PubMed:25505247, PubMed:31182716, PubMed:34857742). Specifically recognizes and binds phosphorylated proteins via its SH2 domain, promoting their ubiquitination (PubMed:21980433, PubMed:25505247, PubMed:31182716, PubMed:34857742, PubMed:37816714). The ECS(SOCS2) complex acts as a key regulator of growth hormone receptor (GHR) levels by mediating ubiquitination and degradation of GHR, following GHR phosphorylation by JAK2 (PubMed:21980433, PubMed:25505247, PubMed:34857742). The ECS(SOCS2) also catalyzes ubiquitination and degradation of JAK2-phosphorylated EPOR (PubMed:11781573).

Cellular Location	Cytoplasm.
Tissue Location	High expression in heart, placenta, lung, kidney and prostate. Predominantly expressed in pulmonary epithelia cells, specifically type II pneumocytes.

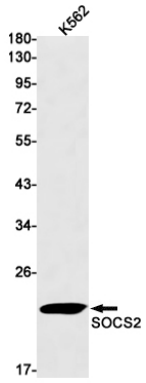
Background

This gene encodes a member of the suppressor of cytokine signaling (SOCS) family. SOCS family members are cytokine-inducible negative regulators of cytokine receptor signaling via the Janus kinase/signal transducer and activation of transcription pathway (the JAK/STAT pathway). SOCS family proteins interact with major molecules of signaling complexes to block further signal transduction, in part, by proteasomal depletion of receptors or signal-transducing proteins via ubiquitination. The expression of this gene can be induced by a subset of cytokines, including erythropoietin, GM-CSF, IL10, interferon (IFN)-gamma and by cytokine receptors such as growth horomone receptor. The protein encoded by this gene interacts with the cytoplasmic domain of insulin-like growth factor-1 receptor (IGF1R) and is thought to be involved in the regulation of IGF1R mediated cell signaling. This gene has pseudogenes on chromosomes 20 and 22. Alternative splicing results in multiple transcript variants.

Images



Western blot analysis of SOCS2 in K562 lysates using SOCS2 antibody.



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